



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/692,687

10/27/2003

Kazuto Usuda

030712-15

2065

22204 7590 06/27/2007
NIXON PEABODY, LLP
401 9TH STREET, NW
SUITE 900
WASHINGTON, DC 20004-2128

EXAMINER

ALIA, CURTIS A

ART UNIT

PAPER NUMBER

2609

MAIL DATE

DELIVERY MODE

06/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/692,687

Applicant(s)

USUDA ET AL.

Examiner

Curtis Alia

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status



DANG T. TON

SUPERVISORY PATENT EXAMINER

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 is/are allowed.
- 6) ☐ Claim(s) 10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :27 October 2003 & 04 August 2005.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on 27 October 2003 and 04 August 2005 were considered by the examiner.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 101 (page 4, line 10), 102 (page 4, line 21), 103 (page 5, line 17), 104 (page 4, line 22), 105 (page 4, line 22). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

Art Unit: 2609

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract is objected to because the phrase "the invention" was used. It is suggested to the applicant to remove the objected phrase from the abstract to conform to the format stated above.

Claim Rejections - 35 USC § 103

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wataru et al. (JP-2003-046490) in view of Hideki et al (JP-2002-165148).

For claim 10, Wataru discloses a jitter buffer control device comprising a FIFO that configures the jitter buffer (see Figure 1, item 14), a packet deletion circuit provided on the input of the FIFO (see discarding a non-note number-ized sound signal, paragraph 33, line 12), a packet addition circuit provided on the output side of the FIFO (see inserting a non-note number-

Art Unit: 2609

ized sound signal, paragraph 33, line 7), a jitter buffer control circuit that includes a buffer accumulation level surveillance (see Figure 1, item 16), a buffered control circuit for controlling the operations of the FIFO and peripheral circuits thereof, which controls the quantity of the packets accumulated in the FIFO to delete the packets when the stored packet quantity exceeds a lower limit of the packet delete area, and controls to add packets when the stored packet quantity falls below an upper limit of a packet add area (see paragraph 32-33), and a decoder that accepts the packets outputted from the packet addition circuit and decodes frames of the packets based on the clock frequency supplied from the VCO (see Figure 1, item 17).

For claim 10, Wataru discloses all of the subject matter of the claimed invention with the exception that a VCO supplies to vary a reproduced clock frequency. Hideki from the same field of endeavor teaches the provision of using a VCO to control the clock frequency of the packet receiving unit in the jitter buffer management system (see paragraphs 22 and 23). When the buffer reaches a capacity greater than an upper limit, the VCO increases the clock frequency. Similarly, when the buffer reaches a capacity smaller than a lower limit, the VCO decreases the clock frequency. Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to use a Voltage Controller Oscillator as taught by Hideki in the jitter buffer control system of Wataru. The VCO as taught by Hideki can be implemented into the jitter buffer control system of Wataru by replacing a static clock device with a clock device capable of adjusting/varying the oscillating frequency. The motivation for using the VCO of Hideki in the system of Wataru is that the packets will enter the AV decoder at the rate needed to reconstruct the audio signal to be output to the speaker.

Art Unit: 2609

For claim 11, Wataru and Hideki disclose all of the subject matter of the claimed invention with the exception that a pulse width modulator is used in replacement of the VCO. However, it is well known in the art to use pulse width modulation as the technique for controlling voltage oscillation. Thus, it would have been obvious to a person having ordinary skill in the art at the time of the invention to use a PWM in place of the VCO in the jitter buffer control system of Wataru and Hideki. The PWM can be implemented into the jitter buffer control system of Wataru and Hideki by using pulse width modulation to control the oscillation of the voltage. The motivation for using a PWM as the VCO is that noise is reduced and it is cheaply implemented.

Allowable Subject Matter

8. Claims 1-9 are allowed.

For claims 1-9, the prior art failed to teach the limitation of setting the clock control area between the packet add area and the packet delete area.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jay et al. (US 6,400,683); Denninghoff (US 2003/0021285); Dowdal et al. (US 2004/0062252); Barve (US 6,856,615).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis Alia whose telephone number is (571) 270-3116. The examiner can normally be reached on Monday through Thursday 8:00AM to 5:00PM EST.

Art Unit: 2609

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on (571) 272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Curtis A Alia/
Examiner, Art Unit 2609

Dang Ton

CAA

A handwritten signature in black ink, appearing to read 'Dang T. Ton', with a stylized flourish at the end.

DANG T. TON
SUPERVISORY PATENT EXAMINER